

## REMARKS

Applicants respectfully request reconsideration of this application, and reconsideration of the Office Action dated June 16, 2004. Upon entry of this Amendment, claims 26-46 will remain pending in this application. New claims 47-67 are also added. The changes to the claims as well as the new claims are fully supported by the specification and original claims. No new matter is incorporated by this Amendment.

As an initial matter, Applicants wish to thank Examiner Reifsnyder for meeting with Applicants' representative on November 9, 2004 to discuss the application. As stated on the Interview Summary, during the interview a proposed amended claim 26 was discussed in relation to the cited art as well as the 112 second rejection. Applicants agreed to submit the amended claim as well as present the arguments discussed during the interview which distinguished the claims from the cited art as well as addressed the 112, second paragraph, rejection in this Amendment.

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The Office Action discusses proper format for an abstract of the disclosure. In response, Applicants submit herewith a new Abstract of the Disclosure that contains less than 150 words. Applicants respectfully request the Examiner acknowledge receipt of the new Abstract of the Disclosure in the next Office Action.

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The drawings were objected to because the Examiner's file copy of Figure 2e on drawing sheet number 4 of 6 was apparently mislabeled as Figure 2. However, Applicants file copy as well as the published PCT document of drawing sheet 4 of 6 shows the Figure properly labeled as FIG. 2e. Applicants submit a copy of drawing sheet 4 of 6 herewith. Hence, withdrawal of the objection is respectfully requested.

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Claims 26-46 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

With respect to claims 26, the Office Action asserted that it was vague how the external and internal shells related to the sealable vessel. In response, Applicants have rewritten claim 26 to clarify that the sealable vessel includes the external and internal shells.

The terminology “the reactor” in claim 38 was said to lack antecedent basis. In response, Claim 38 has been amended by replacing the word “reactor” with “apparatus” which has proper antecedent basis in the claims.

The Office Action also asserted claim 41 was indefinite because it was unclear what part of the apparatus oscillates around the main axis. In response, claim 41 has been rewritten to recite that the mechanism for generating a rotational movement in said vessel comprises a chain and a hydraulic motor commanded by microswitches. Hence, Applicants submit the metes and bounds of claim 41 would be clear to those of ordinary skill.

Furthermore, with respect to claim 46, the Office Action asserted that it is unclear how the transport cart can be part of the apparatus. In response, claim 46 has been rewritten in a manner that addresses this rejection. Moreover, Applicants kindly direct the Examiner’s attention to Figure 2e which shows the apparatus including a cart. Hence, the rejection has been accommodated and its withdrawal is respectfully requested.

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Claims 26-33, 40, 41, 45 and 46 were rejected under 35 U.S.C. § 102(b) as anticipated by Bernard et al. (U.S. Pat. No. 5,478,453).

Claims 26-33, 40, 41, and 44-46 were rejected under 35 U.S.C. § 102(b) as anticipated by Dravnieks et al. (U.S. Pat. No. 3,056,664).

Claims 26-33 and 44-46 were rejected under 35 U.S.C. § 102(b) as anticipated by Kitabatake et al. (U.S. Pat. No. 4,997,124).

Claims 26-33 and 44-46 were rejected under 35 U.S.C. § 102(b) as anticipated by WO 00/31459.

These four rejections are addressed together as similar issues apply to each. Moreover, Applicants respectfully traverse each of the above rejections.

The present invention, as recited in independent claim 26 (from which claims 27-46 all ultimately depend) concerns an apparatus. The apparatus has a sealable vessel includes an external shell and an internal shell. The internal shell is a coating that is mounted on the external shell. Moreover, implosion of the coating is prevented through a vacuum maintained between the coating and the external shell so as to allow the coating and the external shell to be properly juxtaposed.

During the interview, the attached Figure A illustration was provided to facilitate the discussion as to the differences between the present invention, with the Figure illustrating, for example, the disclosure appearing in detail on pages 2 and 8 of the present invention, which describes the relationship between the inner and outer shells. Figure A shows an example of the present invention and the relationship between the outer and inner shells. For instance, the blow-up sections of Figure A show the small spaces that exist between the two shells due to the roughness of the two shells. The vacuum created between the outer shell and inner shell (coating) ensures that the coating and the external shell are properly juxtaposed and also prevents the coating from imploding in the event negative pressure is experienced inside the sealable vessel.

While the cited prior art documents describe vessels that have inner and outer shells, in each vessel of the cited art, the two shells are significantly separated to intentionally provide an insulation chamber therebetween. The vacuum that is produced between the two shells is for the purpose of insulation. Furthermore, none of the cited documents teach that the inner shell is a coating or that the vacuum maintained between the coating and the external shell allows the coating and the external shell to be properly juxtaposed. Hence, none of the cited documents teach or fairly suggests each and every feature of independent claim 26 and thus none of the documents anticipate the claimed invention.

Applicants now turn to the newly added claims. Independent claim 47 recites a vessel wherein the external shell and the internal coating are kept in contact via a vacuum created between the external shell and the internal coating. Furthermore, independent claim 56 describes a chemical reactor that has an internal shell that is in a direct contact relationship with vacuum generation relative to the outer shell. None of the cited documents teach or fairly suggest these features of claim 47 or claim 56. Hence, claims 47 and 56 and those depending therefrom are also patentably distinguishable over the cited art.

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Claims 34-39 were rejected under 35 U.S.C. § 103(a) as obvious based on Bernard et al.

Claims 34-39, 42, and 43 were rejected under 35 U.S.C. § 103(a) as obvious based on Dravnieks et al.

Claims 34-39 were rejected under 35 U.S.C. § 103(a) as obvious based on Kitabatake et al.

Claims 34-39 were rejected under 35 U.S.C. § 103(a) as obvious based on WO 00/31459.

These four rejections are also addressed together as similar issues apply to each of these rejection. Moreover, Applicants also respectfully traverse each of these rejections.

The deficiencies of the cited art have been discussed in detail above. None of the cited documents teach or fairly suggest an apparatus having an external shell and an internal shell that is a coating and is mounted on the external shell wherein implosion of the coating is prevented through a vacuum maintained between the coating and the external shell so as to allow the coating and the external shell to be properly juxtaposed. Hence, these four rejection are also overcome and withdrawal of each are respectfully requested.

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Applicants respectfully submit that this Amendment and the above remarks obviate the outstanding objections and rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees under 37 C.F.R. §§ 1.16 or 1.17 are due in connection with this filing, please charge the fees to Deposit Account No. 02-4300; Order No. 033970.002.

If an extension of time under 37 C.F.R. § 1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The extension fee should be charged to Deposit Account No. 02-4300; Order No. 033970.002.

Respectfully submitted,  
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